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ABSTRACT

Descriptions of seven diverse bilingual education programs focus on instructional practices that have contributed to the programs' effectiveness as measured by exceptional student achievement, trained observers' perceptions of instructional quality, and the pride of professional staff and parents. The program settings and types include these: (1) a small, rural agricultural community in California with carefully proportioned bilingual education from kindergarten through eighth grade; (2) a year-round community school near the California/Mexico border with two-teacher team-taught bilingual education through sixth grade; (3) a barrio school in a large California city, where the program encompasses the entire school; (4) a northern plains Indian reservation, with a program focusing on the written form of the native Indian language; (5) a suburban school in a northeast city, serving a population speaking 30 languages; (6) a large city school with a history of both successful and unsuccessful bilingual education programs, this one serving kindergarten through high school with separation of language groups; and (7) a California city school having both immersion and bilingual programs. Effective instructional features found in the 58 classrooms studied that are shared by bilingual and monolingual education programs alike and features unique to bilingual instruction are outlined and discussed. (MSE)

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EFFECTIVE INSTRUCTIONAL PRACTICES IN BILINGUAL EDUCATION

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EFFECTIVE INSTRUCTIONAL PRACTICES IN BILINGUAL EDUCATION

At a time when so much of American education is homogenized and standardized, despite the tremendously rich variety of American communities and the families who live in them, bilingual education programs are the exception. They have so far escaped the pressures toward standardization, and varied programs are alive and well. Brief descriptions of seven programs can exemplify this diversity. All seven are "effective" programs, where the criterion of effectiveness is significantly higher academic achievement than in other schools for similar children, trained observers' perceptions of the quality of instruction, and/or the pride of professional staff and parents.*

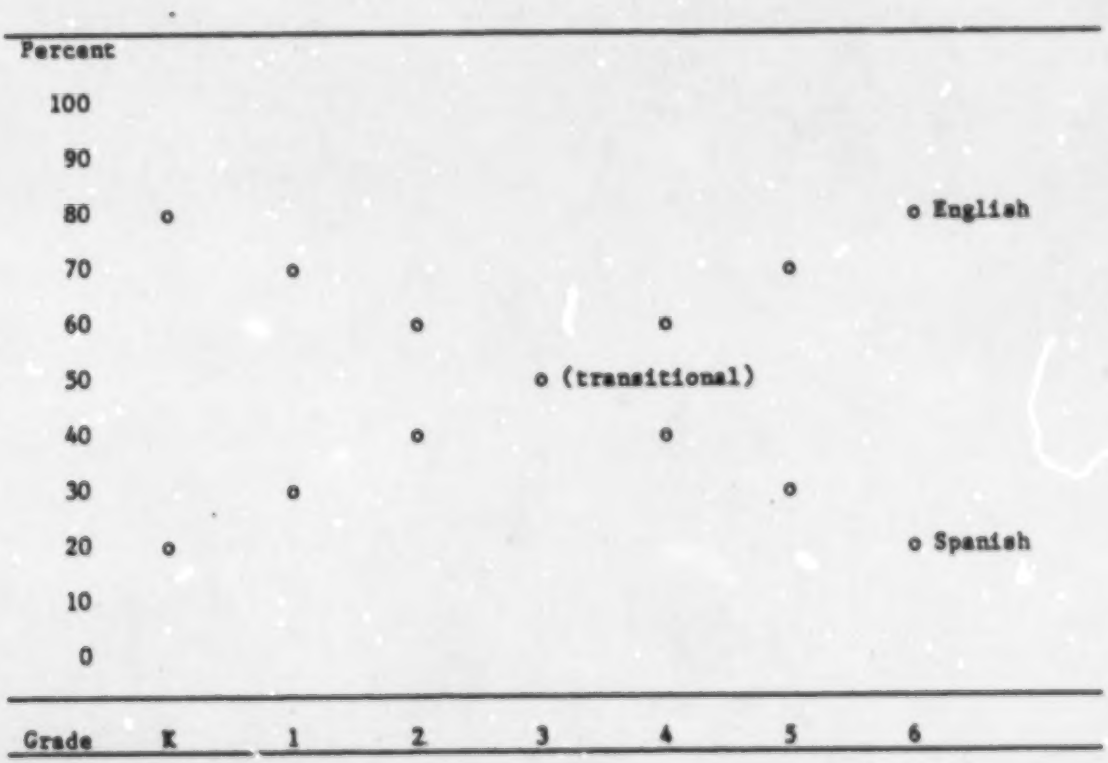
School A is in a small, rural, agricultural community in California. It serves fluent English speaking children as well as limited English speaking children in a bilingual strand from Kindergarten through eighth grade. The proportion of instructional time in Spanish and English changes in a carefully planned way across the grades:

Kindergarten: Spanish and English each 50%
by 3rd grade: English 60%
6-7-8th grades: all English, except for maintaining Spanish literacy development

Literacy is taught first in Spanish. Both English as a second language (ESL) and Spanish as a second language (SSL) are taught (though the latter not as successfully). A special education teacher has organized a "gifted Spanish speaker" group that meets twice a week and has produced a Spanish language play that will be videotaped for future instructional use. A respectful relationship between students and staff permeates both the primary and intermediate schools, and task engagement is high. The bilingual program and the multicultural social studies program that accompanies it are credited with significantly higher achievement than in other such rural communities, and also with unusually harmonious inter-ethnic relationships within the community.

School B is a year-round community school in a town near the California/Mexico border. The Kindergarten-6th grade bilingual strand is taught by two-teacher teams, one of whom teaches only in English and the other teaches only in Spanish. Together, they plan a complex set of activities for children grouped by ability, language level or interest. The program is integrated into the whole school, and includes English speaking children who want to learn Spanish, Spanish speaking children who must learn English, and bilingual children who wish to perfect both languages. The district has a well developed basic skills continuum in both English and Spanish. But to counter the "curricular reductionism" that can result from concentration on isolated skills, the continua are considered a base to be elaborated. The librarian and the well equipped school library are considered by everyone to be "half the language arts program" (though it has admitted inadequacies in Spanish children's literature). Because this is a community school, senior citizens are an important part of the school community--reading to children, accompanying them on trips and helping to make curriculum materials. In general, morale, discipline and achievement are high. It is an effective urban bilingual school.

School C is in the heart of the Spanish speaking barrio in a large California city, and the bilingual program encompasses the entire school. The following chart shows the language development program organization:



All children learn in both English and Spanish throughout the school, and the two languages are considered by everyone as two ways of communicating that are equally useful and valued. The curriculum emphasizes reading, language arts and math, with an expansion of the social studies being planned. To avoid curricular reductionism, a basic skills continuum is enriched by "language experience" activities, evidenced by the wealth of children's writing in both languages on the wall--for example, exceptionally well-written Spanish compositions about a trip to see the migrating whales.

School D is on an Indian reservation at the edge of the northern plains. The local Indian language is a living language, and the focus of the program is on the development of its written form. The bilingual program builds on 12 years of work to standardize the orthography and develop curriculum materials. The teaching staff is half Anglo and half local Indian, and local Indian aides are present part of each day in the classrooms of the monolingual Anglo teachers.

Kindergarten-3rd grade: English is the main language of instruction, with the native language used when necessary to clarify concepts or directions.

4-6th grades: Regular lessons are added in reading (but not writing) the Indian language.

Pullout instruction is kept to a minimum to maintain the classroom teacher's control of the curriculum, and any special help in English to individuals or small groups is closely tied to the subjectmatter of the regular classroom lessons. Since the advent of the present principal 11 years ago, achievement levels have climbed so that now 75% of the children are at or above the national norms in English reading. Math scores are lower, and the teachers and aides have in-service workshops in teaching math in both English and the Indian language. The community is very proud of the school and the achievement of its children.

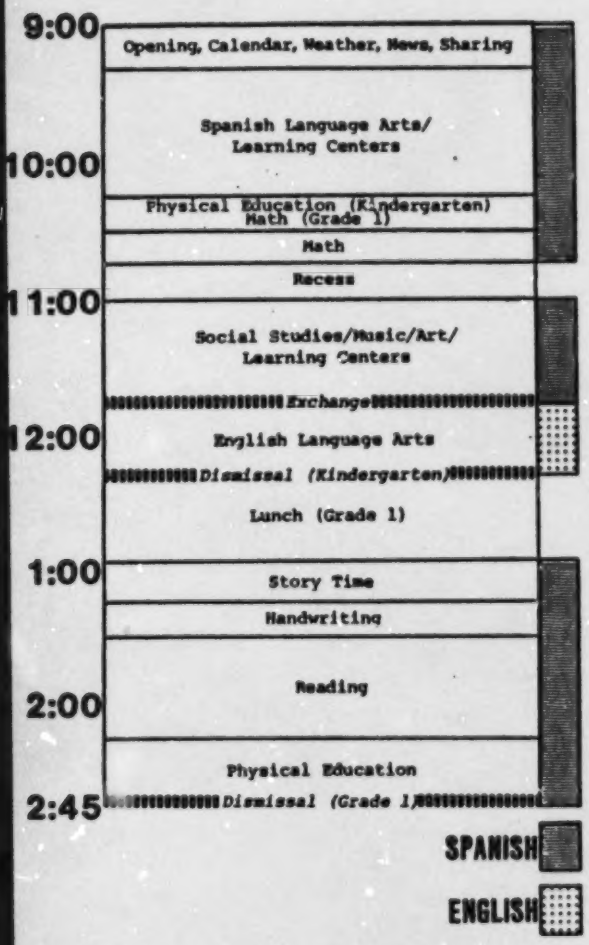
School E is in a suburban metropolitan area in a northeastern state. A pre-World War II Caucasian majority and Black minority has been augmented by immigrants from Korea, Latin America and Southeast Asia. By now, 30 languages are spoken in the district. The school staff is largely Anglo, but Black, Hispanic and Korean teachers are increasing. Two of the district elementary schools have only pullout programs because the number of speakers of any language is less than 20. At each of these schools, a fulltime resource teacher and a full-time aide, highly literate in both Spanish and English, work with the Spanish speaking children in small groups on curriculum carefully coordinated with the classroom teacher. For example, a math lesson conducted in excellent Spanish ends with a review of the central terms in English. Students who speak other languages receive additional help in the content areas in which vocabulary and concept development is stressed. When two or more students speak the same foreign language, they are encouraged to help each other. The third district school is a cluster school for Spanish, Korean and Southeast Asian students. Literacy classes that bring children together from several homerooms are held in Korean and Spanish

through the Jr. and Sr. high schools, but the lack of teachers has limited the use of other languages. The success of the first bilingual program, Korean, and the high achievement of its students formed a base for positive attitudes toward the Spanish program in the community as a whole.

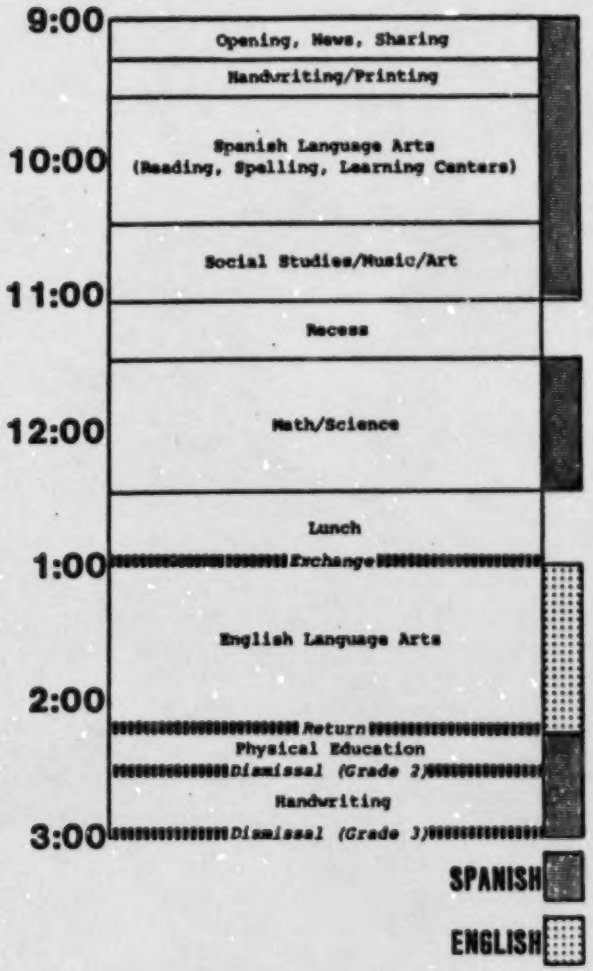
School F is in a large city where an unsuccessful bilingual program for Rom (Gypsy) children a decade ago was followed by successful programs in Spanish (no longer needed) and Korean, and now by diverse immigrants from Southeast Asia. The Korean program is a complete biliteracy program from Kindergarten through high school, with strict separation of the languages observed. For the children from Southeast Asian language groups, a wide variety of instructional approaches, many on a pullout basis, is required by differing numbers of students, their different language proficiencies in English and their first language, and the availability of qualified teachers and aides. Small pullout classes have three instructional goals: systematic English development, teaching life vocabulary in English, and assistance with the vocabulary of the regular curriculum. Frequent consultations between the ESL and classroom teachers is considered by everyone to be a very strong aspect of the program. The experiences of the Southeast Asian children--in refugee camps and many relocations--make adjustment to school difficult. But the school is trying hard and, as with School E, the success of the Korean program has created a positive community attitude toward bilingual education.

School G, in a large California city, has a model demonstration project in two-way bilingual education. 60% of the students are limited English Spanish speakers, and 40% are fluent English speakers from either Hispanic or Anglo families. Instruction and class activities at the primary level (preschool through grade 3) are in Spanish, except for a 20-60 minute period for English, depending on grade level. In grades 4-6, instructional time in the two languages reaches a balance, as shown in the three schedules below. Strict separation of the languages is observed, with different teachers teaching in Spanish and English. The program is thus simultaneously a Spanish immersion program for English speakers (modeled on the successful French immersion programs for English speakers in Canada) and a full bilingual program for Spanish speakers. During both Spanish and English times of the day, students whose primary language is being used as the medium of instruction serve as native peer models for the rest of the class. Participation in the program is voluntary because the pattern of language instruction requires a long-term commitment, and program evaluations have consistently indicated excellent success.

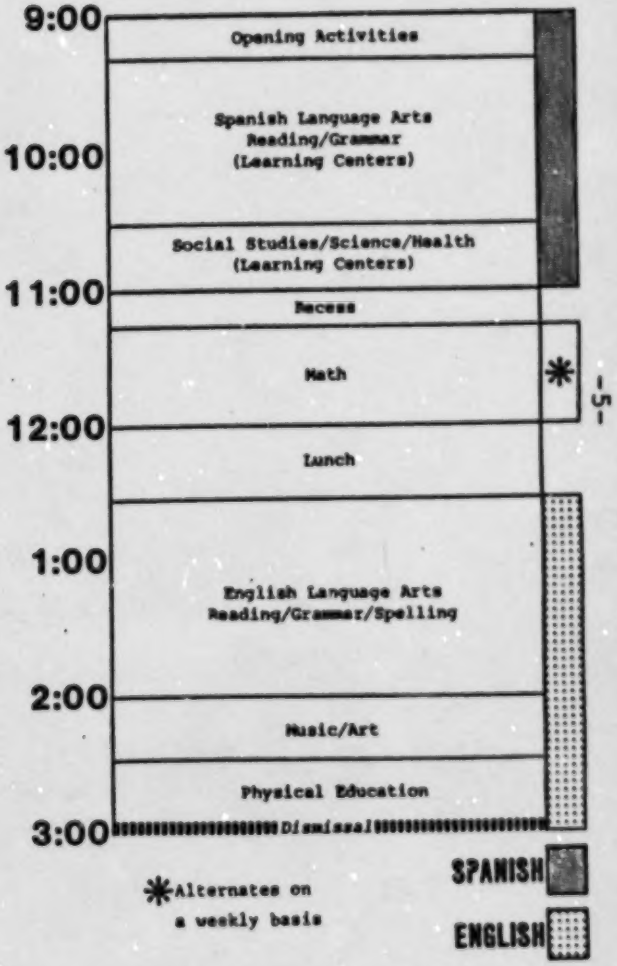
Sample Daily Schedule: K-1



Sample Daily Schedule: 2-3



Sample Daily Schedule: 4-5-6



As these examples make clear, principled variation in the instructional functions and allotment of time in students' first and second language depends on the functions served by the non-English languages in the community, the availability of written texts and qualified teachers in those languages, the composition of student groups with respect to language proficiency, and--most important of all--the language goals of each particular program.

Given this diversity at the level of effective bilingual programs, are there any commonalities in the organization and content of effective classroom instruction? The most systematic attempt to answer that question comes from the Significant Bilingual Instructional Features Study (SBIF).* The 58 classrooms observed in this study come from six sites and include a variety of non-English languages. All were considered "effective" on two criteria: first, they were nominated by members of four constituencies--teachers, other school personnel, students and parents; second, the teaching behaviors produced rates of "academic learning time" (ALT) --a measure of student engagement on academic tasks-- as high or higher than reported in other effective teaching research. Since the SBIF study is the most extensive study of effective instructional practices, its findings will be used as the organizing framework for this review, and findings from other research will be incorporated into comments on the SBIF results.

The SBIF findings can be divided into two parts: instructional features common to bilingual and monolingual education; and instructional features unique to bilingual education. For each part, I will first quote from the SBIF findings and then add comments from other sources.

Shared Instructional Features

The first two instructional features identified in the 58 Effective classrooms pertain to the communication and organization of instruction:

> Successful teachers of LEP (limited English proficient) students specify task outcomes and what students must do to accomplish tasks competently. In addition, they communicate (a) high expectations for LEP students in terms of learning, and (b) a sense of efficacy in terms of their own ability to teach.
>
> Successful teachers of LEP students, like effective teachers generally, exhibit use of "active teaching" behaviors which have been found to be related to increased student performance on academic tests of achievement in reading and mathematics including (a) communicating clearly when giving directions, specifying tasks, and presenting new information; (b) obtaining and maintaining students' engagement in instructional tasks by pacing instruction appropriately, promoting involvement, and communicating their expectations for students' success in completing instructional tasks; (c) monitoring students' progress; and (d) providing immediate feedback whenever required regarding the students' success.

At first thought, these seem unexceptional instructional practices. What these nominated teachers are doing is what all good teachers must

do. If reassurance is needed that good bilingual teachers are first and foremost good teachers, the SBIF study provides that reassurance.

But a more detailed picture of instruction in these classrooms suggests limitations to the available picture of effective teaching. Consider the following more detailed descriptions of the organization of instruction in SBIF classrooms:

> Students were instructed as a single group for slightly more than half of the school day. An additional 46% of the school day was spent in grouped instruction. Individualized instruction was very rare.
>
> The most common activity substructure across all classes involved more than two thirds of the students working directly with the teacher in a recitation-like activity.
>
> Students worked on instructional tasks independently for over 90 % of the average school day. That is, students were required to cooperate with other students or to work in teams very infrequently.
>
> When students worked on instructional tasks which involved the creation of a product, the form and content of the product was prescribed by the teacher over 90% of the time.

One can take exception to this description of effective practices on principled grounds as does John Goodlad, author of the only recent "report on schools" that includes extensive observations in elementary

schools. His articles in the Kappan, previewing his more recent book,[3] express strong criticism that "students rarely planned or initiated anything, read or wrote anything of some length, or created their own products. They scarcely ever speculated on meanings, and most of the time they worked alone". Goodlad's observations in more than 1000 classrooms match SBIF observations in 58, but he does not call what he found "significant instructional practices" in any positive sense.

My interpretation of this contrast in interpretations is that one kind of classroom organization has been reinforced by dissemination of research on "effective teaching", especially the research on academic learning time,[4] and that the result is what the SBIF study found. Bilingual education is, in this sense, sharing from the limitations as well as the benefits of that research. It has promoted a single model of effective teaching: keeping children engaged in academic tasks in a very limited set of organizational arrangements--primarily large-group lessons or solitary work on group-assigned tasks. Teachers who keep children engaged in different activity structures--with more individualized and self-selected reading and writing, and more small group discussions and collaborative work--rarely appear in our research. The possibility of such alternatives in bilingual as well as monolingual classrooms should not be foreclosed by the dissemination of a single model, no matter how frequently encountered in classrooms nominated as effective according to prevailing notions of effectiveness that the academic learning time research has helped to create.

Several related problems can be identified. One is the supposedly neutral concept of "task." To advocate "time on task" says nothing

about what tasks children should spend time on in school. Unfortunately, because of the power of standardized tests in American education today, the tasks children are assigned are those most like items on the tests. Norman Frederiksen, a senior researcher at the Educational Testing Service, writes of the "real test bias": the influence of tests on teaching and learning:

> If educational tests fail to represent the spectrum of knowledge and skills that ought to be taught, they may introduce bias against teaching important skills that are not measured. In view of the increasing influence of standardized tests in education, such bias may be substantial....
>
> Improvement in basic skills is of course much to be desired, and the use of tests to achieve that outcome is not to be condemned. My concern, however, is that reliance on objective tests to provide evidence of improvement may have contributed to a bias in education that decreases effort to teach other important abilities that are difficult to measure with multiple-choice tests. A recent NAEP [National Assessment of Educational Progress] report suggests that there is such a bias.
>
> The NAEP report shows that over the past decade performance on items measuring "basic skills" is not declining, but there has been a decrease on items that reflect more complex skills. ...There are, of course, many possible causes of the changes in performance on the NAEP tests, but the possibility must be considered that the mandated use of minimum competency tests, [and other standardized achievement tests] which use the

> multiple-choice format almost exclusively, may have discouraged the teaching of abilities that cannot easily be measured with multiple-choice items."

Second, even the concept of academic learning time (ALT) itself must be implemented with caution. As defined in the SBIF study, ALT "measures the amount of time a student is productively engaged in completing assigned tasks at a relatively high rate of accuracy." The problem is that tasks that elicit the most accurate responses are not necessarily, or even probably, the most intellectually important. Low level questions about facts--in oral recitations or written comprehension exercises--are more apt to be accurate than higher level questions that demand inferences. Similarly, compositions are more apt to contain errors than fill-in-the-blank workbook exercises; yet one will never learn to construct a coherent paragraph by completing or even transforming sentences originally constructed by someone else.

The danger of "reductionism"-- fractionating complex tasks into component parts that, no matter how well practised, can never reconstitute the complex whole--was mentioned in the descriptions of Schools B and C. It applies to all education, not just bilingual education, but it should be of special concern where language learning is a significant educational goal. British researchers who did a case study of one bilingual school in the U.S. comment:

> The transitional mandate grips the curriculum in an educationally reductionist vice. It is not just that the acquisition of English language skills dominates the activities of teachers and pupils alike but that the

> very definition and pursuit of those skills is constrained by narrow interpretations of legislative intent. The result is a largely behaviorist pedagogy...[in which] language is divorced from its cultural contexts of meaning and use, componentised and taught as abstraction. This is arguably the most difficult way yet devised to promote literacy and the least responsive to the student's cultural resources. [6]

A third problem in applying the ALT criteria to bilingual classrooms concerns the role of error in language learning. From the 2-year old who says mines or feetses to older learners of both first and second languages, errors are indications of the pattern discovery mechanism that is at the heart of our language learning capacity. The fact that some patterns turn out to have exceptions does not detract from the temporary progress that they represent. As Paulston says in her invited commentary on the SBIF findings:

> The notion, common during the behavioral audiolingual days, that errors must be avoided in second language learning lest they become habits has long been superceded by the recognition that errors are inevitable byproducts of language learning, indicative of progress and learning strategies. Student accuracy rate as an aspect of ALT is not valid for the process of language acquisition (emphasis in the original)[7].

Paulston goes on to suggest a distinction between moments when a student error is directly part of the teaching point like the spelling

of plurals or using capital letters (when immediate feedback should be given) and moments when errors occur incidentally and do not interfere with communication (when they can be safely ignored). That is a very different instructional recommendation from placing a premimum on high accuracy at all times, and even selecting tasks--in language arts or other content areas--so that errors are least likely to occur.

Unique Instructional Features

Instructional features unique to bilingual education include the use of two languages, special activities for teaching a second language, and instructional practices that take advantage of students' cultural background.

Use of Two Languages

According to SEIF reports, averaged across the 58 classrooms in the SBIF study, English was used approximately 60% of the time, and L1 or a combination of the two was used the rest of the time, with the % of English increasing with grade level. The third significant instructional feature was the particular way in which the two languages were often combined:

> Successful teachers for LEP students mediate instruction for LEP students by the use of the students' native language (L1) and English (L2) for instruction, alternating between the two languages whenever necessary to ensure clarity of instruction.

That is, during instruction that was basically in English, teachers would switch to L1 to clarify meaning, usually just to an individual

student or a small group.

This use of two languages has been termed "instructional bilingualism" by MacDonald et al, who found the same pattern in their observational study, and "code alternation" by Paulston. More important than the name are distinctions between this pattern and both "codeswitching" and "concurrent translation". Code switching is a common phenomenon in ordinary conversation between bilinguals who share two or more languages. It differs from the SBIF instructional pattern, as Paulston points out, because "code switching does not reiterate but merely continues the narrative," and the teachers do repeat. Concurrent translation is an artificially created teaching strategy in which each and every sentence is spoken first in one language and then translated into the other, often by another teacher or an aide. In the SBIF pattern, teachers translate spontaneously, but usually just to an individual child, and only when there is evidence of lack of comprehension.

Decisions about the instructional role for L1 are among the most important decisions in bilingual education design. In reflecting on the pattern of code alternation, it is important to keep in mind the most powerful theories about the educational significance of L1, and the best environments for the acquisition of L2--the theories of James Cummins and Stephen Krashen, respectively.*

In programs designed on the basis of these ideas, there would be lessons taught entirely in L1 and other lessons taught entirely in L2. A strict separation between the two would be observed, as in Schools B, F and G. This is most easily achieved when the two sets of lessons are taught by different teachers, even in different classrooms (as in School G). Unfortunately, such sustained use of L1 and L2 is not

separated in SBIF reports from the combination of languages that even occasional translation produces. According to one SBIF researcher, Migdalia Romero, "the use of two languages in the observed classrooms was more complex in form and function than the single pattern of periodic language alternation to clarify meanings to individual students that is reported in the SBIF documents".[9]

It is easy to see why concurrent translation was not found in the effective SBIF classrooms, and even hard to see why it ever became a suggested strategy for bilingual education in the first place. Subject matter learning is slowed down, because students get half as much content per unit of time; and students don't have to work to comprehend L2 because they can count on waiting to hear the same message in more familar words. Fillmore comments on one classroom in which concurrent translation was used:

> We have numerous video-record observations of the students (Hispanic and Anglo) in this classroom alternating being attentive and inattentive as the teachers switch between languages in their lessons. During the times the language they don't understand is being spoken, the students simply stop listening. [10]

The same criticism has been made of the more spontaneous and less frequent translation that SBIF found. But the SBIF findings were applauded by other bilingual education teachers to whom the study was reported. Thus there is a conflict of opinion between teachers and researchers on this point.[11]

Evaluation research studies continue to find that in the most

powerful educational environments for producing bilingualism, both languages are used as the medium of instruction, but separately.[12] It is thus important to try to understand why this separation is so hard for teachers to maintain in practise. That it is hard to maintain is confirmed by an evaluation of four Head Start bilingual curriculum models:

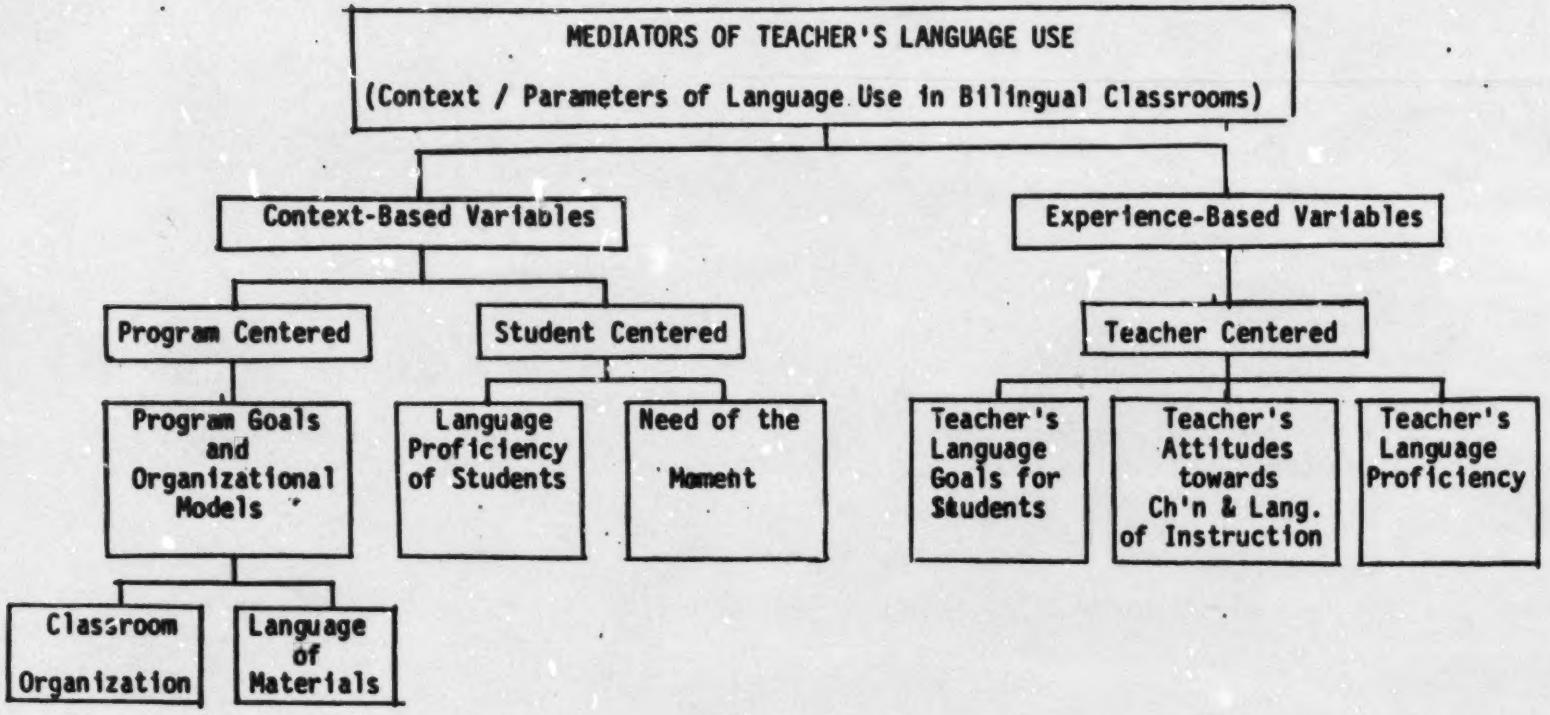
> Carrying out the language strategies suggested by the models was the aspect of programming most related to positive outcomes. It was at those sites where the teachers most consistently followed the model's strategy for language practise that most significant differences between Experimental and Comparison Head Start children were generally found. Teachers using models recommending language separation strategies encountered difficulties in maintaining the use of a single language during language sessions.[13]

Why is this so? In a diagram given on the next page, Romero suggests many influences on a teacher's language use.[14] Three reasons deserve special mention.

One reason may be inadequate proficiency in the language of instruction. Teaching in a language requires more than a tourist's knowledge. Richness of vocabulary and clarity of espression are essential. When teachers are teaching in their own weaker language and hit a communication barrier, the easiest recourse is to supplement with a few words of their own L1.

A second reason is that it is harder work both to plan and to teach a lesson completely in the students' L2, making it comprehensible

THEORETICAL FRAMEWORK



developed by:
Migdalia Romero
Hunter College, NYC

AERA, New York 1982

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through pictures, gestures, predictable and consistent task structures, etc. Moreover, when talking to a group of students of mixed language proficiency levels, adjustment of vocabulary and syntax to the comprehension level of the students becomes even more complicated, and pressures to help individual students without losing the attention of the rest of the group may make a quick translation seem to be the most expeditious response.

Finally, in programs where L1 does not have a valued and secure substantive role as the sole medium of instruction during part of the school day, teachers may feel that using it even in a limited and occasional way helps to establish an identification and trusting relationship with their students.

It is important to understand the reasons for language alternation --whether these or others--in each particular case, not to accept it as inevitable, but to know where to try to work for change. Then, as Legarreta-Marcaida suggests[18], occasional monitoring will be necessary to make sure that the desired language use is being maintained. This is especially true with respect to the use of minority languages because of the powerful pressures toward English discussed below.

Immersion programs. "Immersion" is the term used for the succesful bilingual programs in Canada in which English-speaking children are instructed initially in French. Because the influential Baker and deKantor review of evaluation studies concludes that "structured immersion" programs should be expanded in the U.S., it is important to be clear about the Canadian original, and about the dangers of a simplistic transfer of an educational program from one

cultural context to another.[14]

The bar graph on the next page shows the allocation of instructional time in French (L2) and English (L1) in Canadian immersion programs that begin in Kindergarten.[17] In thinking about this model, it is important to remember that in Canada the total immersion experience is a bilingual experience from the first day of school. The children's L1, English, is the language of the school--its offices, halls and playgrounds. Children are not criticized for speaking L1 in the first year or two, and teachers in the first two years must be bilingual so the children can always be understood.

Because French immersion programs have been so successful for English-speaking children in Canada, it is not surprising that some American policy-makers have recommended their development for minority children in the U.S. But such a simplistic transfer ignores differences in the cultural and political contexts of the focal children in the two countries. On the basis of extensive research experience in both Canada and the United, Tucker describes the "the very restrictive conditions under which. . . it would seem fully appropriate to begin schooling in the second language:"

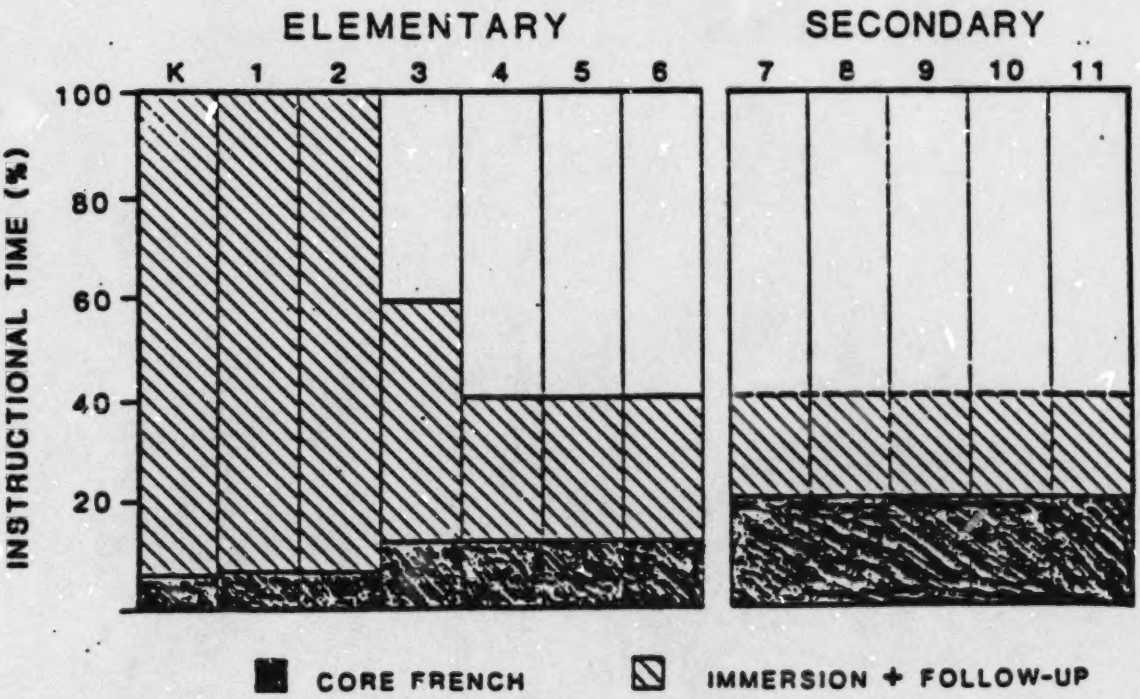
> where the home language is highly valued by all members of the community, where parents actively provide encouragement and support for the acquisition of literacy in the mother tongue, and where a community stereotype exists that the children will succeed in school (emphasis added-CBC).[18]

Those conditions prevail for English-speaking children in Canada but not for minority-language children in the U.S.

Paradoxically, the status of L1 as a valued means of communication and a medium of significant content instruction is more secure in true

Summary of an Early Total French Immersion Program

(Note: Core French consists of language arts instruction of 30 to 60 minutes daily.)



From: Genesee, F. (1984). Historical and Theoretical Foundations of Immersion Education. In Studies on Immersion Education: A Collection for United States Educators. California Department of Education: Office of Bilingual Education.

immersion programs than in many bilingual education programs. And teachers and outside experts agree that L1's secure status is central to the immersion program's success. In any evaluation research on the effects of immersion education for minority children in the United States, two design features of such research are essential: as far as possible, the status of L1 should have at least the same status in the total program as it does in Canada, and the appropriate comparison program should be a long-term ("late exit") bilingual program--for instance, the program for Spanish-speaking children in school 6 or for Navajo children described by Rosier and Holm.[19]

Teacher competencies. Wherever possible, teachers of young children (ideally, of beginning L2 learners of any age) should understand L1 even if on a principled basis they speak only L2 during certain periods of the school day. Observational studies describe frequent situations where the teacher's bilingualism is critical to the child's engagement; and where monolingual L2 teachers cannot tell when children speaking L1 are on task or off, and so reprimand them for speaking L1 even to each other, simply because it is incomprehensible to the teacher.[20]

A more complex issue concerning teacher competencies emerges from a combination of studies of initial literacy instruction.[21] The logic of the concern is as follows: The most difficult aspect of learning to read is not decoding but comprehension; in Spanish/English bilingual programs, initial literacy is almost always in Spanish; where the teacher is not sufficiently bilingual to carry out this instruction in Spanish, initial literacy is taught by aides (40% of the time, according to one study); because aides are less qualified and less

experienced than certified teachers, they are less apt to do the more difficult task of literacy teaching with a stress on comprehension. Thus teachers are needed who have training in teaching reading as well as a high degree of proficiency in the language of instruction.

This argument is not intended to underestimate the value of aides. Even in classrooms where teachers are fluent in both L1 and L2, aides provide valuable instructional help. And, because in social class and educational level they are closer to many parents than most teachers, they also provide an important link between the school and the community.

Teaching a Second Language

Instruction in bilingual education has to be planned with the needs of second language learners in mind. This involves both the accommodation of instructional language to learners who are not yet fully proficient, and the provision of activities that are designed specifically for learning L2. The fourth significant instructional feature in the SBIF classrooms is the integration of these two goals:

> Students learn the language of instruction when engaged in instructional tasks using that language. This integrative approach to developing English language skills during on-going instruction in the regular classroom contrasts with the more traditional, pull-out procedures where LEP students leave the regular instructional setting to receive ESL instruction.

This integrative approach to teaching L2 skills also chacterized the prorgams in Schools B, C, D and G. Other research reports and

commentaries suggest four additional considerations.

The danger of distorted subject matter instruction. If the regular classroom teacher feels the full responsibility for teaching L2, subject matter instruction may be distorted. The teacher may concentrate too much on formal and superficial aspects of the students' L2 production, and communication about the content may come to a halt while she corrects student errors. Remember Paulston's recommendation that L2 errors not be corrected when language use is incidental to the lesson and does not interfere with communication.

A specific instance of this danger is shown in Moll's contrastive study of the reading instruction of a single 3rd and 4th grade group of Spanish dominant students who were taught first in Spanish by one teacher and then in English by another.[22] The contrast is described in detail for the high group (the same children) in each class.

In the Spanish reading lesson, discussion about the text demands high level comprehension via questions of inference and generalization, and written book reports are assigned. When the same children are in the English reading lesson taught by an English monolingual teacher, "The overriding orientation of these lessons was on the process of decoding, pronunciation and other forms related to the sounds of the second language". Either the English teacher was using the reading lesson as a pretext for an ESL lesson in pronunciation, or he was considering all errors in pronunciation to be errors in decoding without the kind of comprehension check that could distinguish between the two.

In a second study, Moll replicated the Spanish reading/ English reading contrast. Again, "children with excellent Spanish reading skills were placed in English reading groups that required

comparatively low levels of performance". He then designed a set of experimental lessons in English reading. In these lessons, the children read the texts silently, to avoid attention to pronunciation, and were encouraged to express in Spanish their comprehension of the English text. This enabled the children to read grade level materials rather than the much easier material they had previously been assigned.

The importance of Moll's work is less in his particular solution and more in highlighting the danger that the "English reading curriculum underestimates the student's ability by addressing low level oral language problems at the expense of developing grade-level reading comprehension". The benefits or liabilities of the integrated approach that SBIF found thus depends on the approach to the acquisition of English held by the content-area teachers.

The effect of the composition of the student group. When the SBIF study compared the stability of instructional practices across two successive years in a subsample of ten classrooms, they found differences that could be attributed to three influences: a change at the district level about what tests students in the bilingual program had to take; a change at the school level in the availability of an ESL teacher or aides; and a change at the classroom level in the language proficiency composition of students in the class.

One study by Fillmore suggests a principled way of thinking about relationships between the composition of the class and the organization of instruction.[23] When a class has a heterogeneous group of fluent and limited speakers of the instructional language, it is particularly difficult for the teacher to teach the group as a whole and accomodate her language to such varied proficiency levels. However, if pairs or

teams are formed so that fluent speakers are paired with less fluent children, the number of language models available is multiplied.

In discussing SBIF's findings about the predominance of large group instruction, I reported Goodlad's recommendation that more opportunities be created for children to work together on academic tasks. Fillmore's work suggests that this recommendation is especially appropriate in such mixed groups. School B is an example of a program where each group of language learners has a set of native-speaking classmates, with the role of expert and learner reversed in the L1 and L2 parts of the school day.

From her more recent research, Fillmore suggests that this recommendation may be more appropriate for children from some cultural groups (e.g. Hispanic) than others (e.g. Chinese, who expect the teacher to be the source of knowledge). The importance of such cultural considerations in bilingual programs is discussed further below.

What about ESL? Whether it is taught by the regular classroom teacher as language arts or by a teacher specially trained in teaching English as a second language, there is value in a regular period when language itself is the focus of attention. Depending again on the language proficiency composition of the class, this may have to be done on a pullout basis--as in Schools E and F.

Appropriate teaching methodology is a more controversial question. According to Paulston, with adolescents and adults the audiolingual method has been discredited, and there is general agreement on a communicative approach where the focus is on language use rather than language form. But elementary ESL teachers insisted to her on the value of choral drills e. substitution, repitition and transformation--

the core of the audiolingual method. Like the matter of code alternation in regular classroom instruction, the matter of the most effective instructional practices in ESL is a question on which experts and at least some teachers disagree. Since there is no evidence of the value of pattern drills, it is important to understand why they are still so widely used and then take steps, including in-service education, to help teachers adopt more effective practices.

These recommendations apply, of course, to second language instruction in non-English languages as well--e.g. Spanish as a second language (SSL).

The value of reading to children. From research on children's language development, we have known for a long time that reading to children makes a significant and special contribution to their growth in oral language proficiency and later reading success. The language of books is not the same as the language of everyday conversation, and reading to children provides unique input to their mental language system. They become familiar with less frequent vocabulary and systactic patterns they will encounter later in reading to themselves. Moreover, the adult-child talk interpolated between the lines of the text is, in essence, instruction in reading comprehension. And of course such activity brings enjoyment of books and increased motivation for literacy.

In the time pressures already present in bilingual education, it is perhaps not surprising that reading to children is never mentioned, even in descriptions of effective programs. But we now have research documenting how reading to and with children can contribute more to their second language learning than equal time given to conventional lessons in ESL. The research was done on two South Pacific islands,

where teaching English admittedly faces special problems due to the lack of native English speaking teachers. But the principles behind the success are so well grounded in other research that the activity is well worth finding time for in even the busiest school day.[24]

Cultural Sensitivity

About the fifth instructional feature found in the SBIF study there is no controversy. Everyone reading or hearing the SBIF reports--outside experts and bilingual teachers alike--agrees that the use of information from the LEP students' home culture can promote engagement in instructional tasks and contribute to a feeling of trust between children and their teachers.

The SBIF researchers found three ways in which home and community culture is incorporated into classroom life: Cultural referents in both verbal and nonverbal forms are used to communicate instructional and institutional demands; instruction is organized to build upon rules of discourse from the L1 culture; and values and norms of the L1 culture are respected equally with those of the school.

The SBIF reports say little more about cultural considerations than these summary statements. In a secondary analysis of five of the nine SBIF case studies, Romero gives a good example from a Navajo classroom:

> One entire group of LEP students was observed as "loud, pushy and aggressive" with their Anglo teacher, behavior which was never observed while they were with their Navajo teacher.... The Navajo teacher, whether teaching through English or Navajo, seemed to have established with the class a set of Navajo-based ground rules. These included creating a

> non-competitive atmosphere and avoiding bringing attention in any way to individual children. The teacher accomplished this by not calling students by name, accepting answers which were called out and by not insisting on children raising their hands. The other teacher who instructed in English exclusively seemed to operate with Anglo-based ground rules which were in direct opposition to those established by the Navajo teacher. [35]

The cultural appropriateness of teaching practices is as important as the language of instruction in achieving students' maximum attention to the task at hand. A particularly clear example of adapting education to a cultural minority (albeit in English) is the Kamehameha Early Education Program (KEEP) for Polynesian children in Hawaii. [36]

One teacher educator, Blanco, reflects on SBIF's observations on the importance of culture:

> It is incumbent on teacher education programs to provide prospective teachers not only with anthropological information about specific cultures, but also with training in ethnography. This would develop in teachers the necessary skills to seek cultural information and to analyse it for use in dealing with students on both a personal and an instructional level.[37]

In addition to language proficiency and subject matter competence, cultural sensitivity is thus a third competence needed by bilingual education teachers.

Two General Concerns

In addition to the specific instructional issues discussed so far,

two more general concerns merit attention: the dangers of isolation of bilingual programs within the school, and pressures on the programs to increase instructional time in English.

The Dangers of Isolation

Many observers of life in schools have commented on the isolation of teachers within their classroom walls. In schools with bilingual education programs, this isolation has two unfortunate effects.

The first problem is that teachers who teach the same children within the bilingual program may not get together to plan the most coherent overall curriculum. Descriptions of schools D, E and F mention the benefits of such ccordination between ESL and regular classroom teachers; and Moll's work illustrates the loss to children's education when L2 teachers do not know what children have already learned in L1 and therefore cannot encourage transfer of skills from one language to the other.

The second problem is the all too common isolation of the bilingual classrooms from the rest of the school program. Such isolation makes it less likely that the children in the bilingual program will have the same curriculum in the content areas as children in the rest of the school. A manual for technical assistance to school districts devised by an unusual team of lawyers and educational experts describes the general problem:

> There is a natural tendency for bilingual education to exist on the edge of the school--disconnected from what the "regular" students and teachers are doing. This tendency must be fought both for the benefits of the students in the program

> and for the survival of the program itself. In particular, the curriculum in the program should be related to the mainstream curriculum. This does not mean, for example, that English readers must be used according to the designated grade level; on the contrary, such readers should be introduced only when oral progress in English has laid the appropriate groundwork. But in such content areas as science, students must be kept up to grade level in the language they understand so that when they are ready to leave the bilingual program, they are also ready to pick up the regular course work.[28]

For example, one survey of 60 Title VII programs--carefully selected to be a stratified random sample from the entire country--found that the omission of not only social studies and science, but even mathematics, increased with grade level.[29] And even where the same subjects are taught, the same curriculum quality may not be assured. For example, if there is an in-service course for elementary teachers to raise the quality of mathematics instruction, bilingual teachers should attend with everyone else; similarly, if a new language arts specialist is working with classroom teachers to improve the quality of instruction in writing, that specialist should work in the bilingual classrooms too. Whether classroom instruction is in L1 or L2 is irrelevant to these issues of curriculum quality control. Nothing less can provide true equality of educational opportunity.

One project designed as inservice education by means of collaborative research focused directly on such curriculum discontinuities, and on the "open hostility" reported by one principal between native language teachers, ESL teachers,and teachers

of English-dominant classes.[30] Observations in two schools in different cities carried out in part by the teachers themselves under the guidance of the researcher found two kinds of discontinuities.

First, children faced different demands for language use: whereas teacher objectives in the native language classrooms were balanced between cognitive and affective/social objectives (53% vs. 47%), objectives in the English classrooms were much more heavily cognitive (86% vs. 14%); and in the ESL lessons--which were supposed to bridge the native language and English environments--the predominance of cognitive objectives was the highest of all (96%). A second discontinuity was found in the extent of student initiation of teacher-student interaction: it was much more common in L1 classrooms than in either ESL or regular English classrooms. It is not possible from this study to say which are the preferred patterns, but it is hard to imagine any good reason for such discrepancies.

In addition to these discontinuities, the study found evidence of the same kind of unnecessary redundancy that Moll found: the same concept or skill was being taught all over again in the three settings.

The fact that this study was conducted in two different schools, and that the patterns were the same in L1 classes in Chinese, Spanish, Portugese and Haitian, suggests that these patterns may be widespread even if the particular discontinuities and redundancies are different elsewhere. What is needed, and what developed in this project, is deliberately arranged communication among teachers who are, or will be, teaching the same children. In the schools of this project it took an outside researcher to bring the three groups of teachers together in reciprocal observations and shared curriculum planning. It should be

possible for a school principal to play that integrating role.

Without such integration, children's education will be limited not by their abilities or their language, but by the invisible walls between teachers built by categorical funding and separate professional worlds.

Pressures toward English

There are two separate but compatible arguments for the importance of instruction in minority languages in the United States. The psychological argument, argued persuasively by James Cummins and others, is that the use and development of L1 makes an essential contribution to the development of minority children's subject matter knowledge and academic learning potential. The social argument, stated persuasively in the joint recommendation of the Academy for Educational Development and the Hazen Foundation, is that America needs to become a more multilingual nation, and children who speak a non-English language are a national resource to be nurtured in school.[31]

Both goals suffer from current pressures to increase the instructional use of English. These pressures come indirectly from the culture at large, and more directly from the use of tests in English as the sole criterion by which students (and thereby teachers) are evaluated.[32] Schools A-G were selected as examples in this review in part because they show that programs can combine the continuous development of L1 with grade level achievement in English. But many programs are not as strong in withstanding the pressures toward English.

In Paulston's words, bilingual education is not a "quick fix". It cannot be quick. (Consider how long it would take us to learn enough L2

not only to get by as a tourist in some foreign country but to be able to participate fully in a seminar there.) And it should not be considered a "fix". To the extent that it tries to be a quick fix, it will fail on both counts.

Notes

1. The first three examples are the three "effective bilingual schools" described by Carter and Maestas (1982). The next three were selected from Cardenas and Rudes' case histories (1983, #8, 14, 22) of Title VII programs because they were also described as excellent programs and served very different communities from the first three. The seventh example was described briefly in the National Clearinghouse for Bilingual Forum, October, 1982; the Los Angeles Times, 11/22/82, pp. 24-5; and in Wallace Lambert's chapter in Dolson (1984); see San Diego City Schools (1982) for details. The first six descriptions are taken almost verbatim from the original source; the seventh is supplemented by my observations.

2. See all references by Fisher et al, Tikunoff, and Villegas for a partial set of reports from this large study. Statements of the five major findings are taken from Tikunoff's summary in Tikunoff (1983a).

3. Goodlad (1983; 1984)

4. See Berliner (1981) for a summary of this research by one of its most important researchers.

5. Fredericksen (1984)

6. MacDonald et al (1982) did a case study of a bilingual school in Boston.

7. Christina Paulston was one of the researchers commissioned by SBIF to compare SBIF findings with their own research and the research of others. All references to Paulston are to her paper in Tikunoff (1983a).

8. The first section of Dolson (19181) includes chapters by Cummins and Krashen. See also the chapter by Lapkin and Cummins in Dolson (1984), Cummins in Tikunoff (1983a) and Cummins (1983). Education Week for 2/8/84 includes a summary of their views.

9. Migdalia Romero, New York Bilingual Education Multifunctional Support Center, Hunter College, personal communication 6/84, quoted with permission.

10. Quoted in Dolson (1981), p. 95.

11. See SBIF "Utility" report (Tikunoff, 1983b) vs. discussions by Fillmore and Paulston in Tikunoff (1983a) and Swain (1983).

12. e.g. Legarreta-Marcaida in Dolson (1981)

13. Juarez and Associates, n.d.

14. Romero, (1982a)

15. Legarretta-Marcaida in Dolson (1981)

16. Dolson (1984) includes chapters by experts on the Canadian immersion programs (Lambert, Genesee, Swain, and Lapkin & Cummins) as well as researchers more familiar with the American scene (Campbell and Hernandez-Chavez). Information on the Pena-Hughes and Solis program included in Baker and deKantor's (1982) review is scanty. See comments in Willig (1981-2).

17. from Genessee in Dolson (1984), reprinted in Gray & Campbell (1984)

18. Tucker (1980)

19. Rosier & Holm (198)

20. For one example, see chapter by Carrasco in Erickson et al (1983).

21. From Cardenas et al (1982) and Southwest Regional Laboratory's (n.d.) study of bilingual programs in Arizona.

22. Moll et al (1980) is a published version of the first part of Moll (n.d.).

23. Fillmore (1982a) and personal communication 1/84

24. Elley (1981) and Elley & Mangubhai (1983) report gains in English language learning in the South Pacific. For evidence for the influence of being read to on L1 language development, see C. Chomsky (1972). For a description of the reading program developed in New Zealand and used by Elley, see D. Holdaway (1979).

25. Romero (1982b)

26. See Au & Jordan in Treuba, Guthrie & Au (1981) for one report on the KEEP program, and other articles in that same volume for extensive discussion of culturally appropriate education.

27. Blanco in Tikunoff (1983a). See Hansen et al (1981, p. 123; and n.d., pp. 40-43) for negative instances of cultural insensitivity.

28. Teitelbaum, Hiller, Gray & Bergin (1982)

29. Cardenas et al (1982), p. 222.

30. For a description of this project, see Gonzalez (1983), pp. 30-41. The name of the researcher, for some reason not given in this summary report, is L. Ventriglia.

31. In a critique of the recent "reports", Garcia (1984) discusses the "clear contradiction between supporting learning foreign languages by the majority and discouraging the maintenance of ethnic languages by the minority.

32. Fillmore et al (1981 and 1983) give eloquent examples.

References

Academy for Educational Development and Edward W. Hazen Foundation. A new direction for bilingual education in the 1980s. Roslyn, VA.: National Clearinghouse for Bilingual Education, Focus No. 10, March, 1982.

Attinaisi, J., Pedrazza, P., Poplack, S. & Pousada, A. Intergenerational perspectives on bilingualism: From community to classroom. New York: Hunter College, Center for Puerto Rican Studies, 1982. (Final Report, NIE-G-78-0091)

Baker, K. A. & deKanter, A. A. Federal policy and the effectiveness of bilingual education. In K. A. Baker & A. A. deKanter (Eds.), Bilingual education: A reappraisal of federal policy. Lexington, MA.: D.C. Heath, 1983. Pp. 33-86.

Berliner, D. C. Academic learning time and reading achievement. In J. T. Guthrie (Ed.), Comprehension and teaching: Research reviews. Newark, DE.: International Reading Association, 1981. Pp. 203-226.

Cardenas R. F. & Rudes, B. A. A descriptive study of the classroom instruction component of the ESEA Title VII Bilingual Education program: Selected Case Histories. Arlington, VA.: Development Associates, Inc., Feb., 1983. (NIE contract 300-79-0675)

Cardenas, R. F. et al. A descriptive study of the classroom instruction component of the ESEA Title VII Bilingual Education program. Arlington, VA.: Development Associates, Feb., 1982. (NIE contract 300-79-0675)

Carter, T. P. & Maestas, L. C. Effective bilingual schools serving Mexican American students. Sacramento, CA.: California State University, School of Education, March, 1982. (Supported by California State Dept. of Education, Office of Bilingual Bicultural Education.)

Chomsky, C. Stages in language development and reading exposure. Harvard Educational Review, 1972, 42, 1-33.

Cummins, J. Policy report: Language and literacy learning in bilingual education. Austin, TX.: Southwest Educational Development Laboratory, Sept., 1983 (NIE contract 400-80-0043)

Dolson, D. P. (Ed.). Schooling and language minority students: A theoretical framework. Los Angeles, CA.: California State University, Evaluation, Dissemination and Assessment Center, 1981.

Dolson, D. P. (Eds.). Studies in immersion education: A collection for U.S. educators. Sacramento, CA.: California State Dept. of Education, 1984.

Elford, E. A study of bilingual instructional practices in nonpublic schools. Princeton, NJ.: Educational Testing Service, Dec., 1982. (Final Report, NIE contract 400-81-0040)

References (cont'd)

Elley, W. B. The role of reading in bilingual contexts. In J. T. Guthrie (Ed.), Comprehension and teaching: Research reviews. Newark, DE.: International Reading Association, 1981. Pp. 227-254.

Elley, W. B. & Mangubhai, F. The impact of reading on second language learning. Reading Research Quarterly, 1983, 19, 53-67.

Erickson, F., Cazden, C., Carrasco, R. & Maldonado-Guzman, A. Social and cultural organization of instruction in classrooms of bilingual children. Cambridge, MA.: Harvard Graduate School of Education, Sept., 1983. (Final report, NIE G-78-00-99)

Fillmore, L. W. Instructional language as linguistic input: Second-language learning in classrooms. In L. C. Wilkinson (Ed.), Communicating in the classroom. New York: Academic, 1982. Pp. 283-296. (a)

Fillmore, L. W. Language minority students and school participation: What kind of English is needed? Journal of Education, 1982, 164, 143-156. (b)

Fillmore, L. W. The language learner as an individual. Implications of research on individual differences for the ESL teacher. In M. A. Clarke & J. Handscombe (Eds.), On TESOL '82: Pacific perspectives on language learning and teaching. Washington, D.C.: Teachers of English to Speakers of Other Languages, 1983. Pp. 157-173.

Fillmore, L. W. et al. First year report on "Learning English through bilingual instruction". Berkeley, CA.: University of California, Graduate School of Education, Nov., 1981. (NIE contract 400-80-0030)

Fillmore, L. W. & Ammon, P. Second year report for "Learning English through bilingual instruction". Berkeley, CA.: University of California, Graduate School of Education, May 1983. (NIE contract 400-80-0030)

Fisher, C. W., Guthrie, L. F., & Mandinach, E. B. Verification of bilingual instructional features. San Francisco, CA.: Far West Laboratory, Sept., 1983. (SBIF-83-R.12)

Fisher, C. W., Tikunoff, W. J., & Ward, B. A. et al. Preliminary report of organization of instruction in the classrooms of the SBIF-81-R.2)

Frederiksen, N. The real test bias: Influences of testing on teaching and learning. American Psychologist, 1984, 39, 193-202.

Garcia, O. Foreign languages as a requirement for excellence in education? A response to the recent reports. Paper presented at the Weekend Institute on Building on the Strengths of Children, City College of New York School of Education, 1984.

References (cont'd)

Goodlad, J. I. A study of schooling: Some findings and hypotheses. Phi Delta Kappan, 1983, 64 (March), 465-470.

Goodlad, J. I. A study of schooling: Some implications for school improvement. Phi Delta Kappan, 1983, 64 (April), 552-558.

Goodlad, J. I. A place called school: Prospects for the future. New York: McGraw-Hill, 1984.

Gonzalez, R. C. Collaborative research and inservice education for teachers of students with limited English proficiency. Washington, D.C.: National Institute of Education, Sept., 1983.

Gray, T. C. & Campbell, R. N. Comparative evaluation of elementary school foreign language programs. Final report to the Hazen Foundation and the U.S. Department of Education (grant #G00-82-01527), January, 1984.

Hansen, D. A. et al. The social contexts of learning in bilingual classrooms: First year report. Berkeley, CA.: University of California, Graduate School of Education, Sept. 30, 1981. (NIE contract 400-80-0029)

Hansen, D. A. et al. The social contexts of learning in bilingual classrooms: Preliminary analysis of year two data. Berkeley, CA.: University of California, Graduate School of Education, N.D. (NIE contract 400-80-0029)

Holdaway, D. The foundations of literacy. Sidney and New York: Ashton Scholastic, 1979.

Hoover, W. Language and literacy in bilingual education: Cantonese site analytical study. Austin, TX.: Southwest Educational Development Laboratory, Sept., 1983. (NIE contract 400-80-0043)

Juarez and Associates. An evaluation of the Head Start bilingual bicultural curriculum models. Final report to the U.S. Department of Health and Human Services (Contract #105-77-1048). Los Angeles: author, n.d.

MacDonald, B., Adelman, C., Kushner, S., & Walker, R. Bread and dreams: A case study of bilingual schooling in the U.S.A. Norwich (England): University of East Anglia, Center for Applied Research in Education, CARE Occasional Publication No. 12, Oct., 1982.

Mace-Matluck, B. J., Dominguez, D., Holtzman, Jr., W., & Hoover, W. Language and literacy in bilingual education: Descriptive studies--Asian, Spanish, Navajo. Austin, TX.: Southwest Educational Development Laboratory, Sept., 1982. (NIE-R-80-0026)

Mace-Matluck, B. J., Hoover, W. A. & Dominguez, D. Language and literacy learning in bilingual education: A case study of practices and outcomes. Austin, TX.: Southwest Educational Development Laboratory, Sept., 1983. (NIE contract 400-80-0043)

References (cont'd)

Moll, L. C. Bilingual communication skills in classroom contexts. San Diego, CA.: University of California: Laboratory of Comparative Human Cognition, n.d. (Final report: NIE-G-80-0155)

Moll, L. C., Estrada, E., Diaz, E., & Lopes, L. M. The organization of bilingual lessons: Implciations for schooling. Quarterly Newsletter of the Laboratory of Comparative Human Cognition, 1980, 2, (3), 53-58.

Romero, M. Language use in bilingual classrooms. Paper presented to the annual meeting of the American Educational Research Association, New York City, March, 1982.

Romero, M. Students' response to classroom work activities based upon language of instruction. Paper presented to the annual meeting of the American Educational Research Association, New York City, March, 1982.

Rosier, P. & Holm, W. The Rock Point experience: A longitudinal study of a Navajo School Program. Washington, D.C.: Center for Applied Linguistics, 1980.

San Diego City Schools. An exemplary approach to bilingual education: A comprehensive handbook for implementing an elementary-level Spanish-English immersion program. San Diego, CA.: Author, ESEA Title VII Bilingual Demonstration Project, 1982.

Southwest Regional Laboratory. Instructional accomplishments of Hispanic students in reading and mathematics. Los Alamitos, CA.: author, n.d. (Done in cooperation with Bilingual Education Unit of the Arizona Department of Education.)

Swain, M. Bilingualism without tears. In M. A. Clarke & J. Handscombe (Eds.). On TESOL '82: Pacific perspectives on language learning and teaching. Washington, D.C.: Teachers of English to Speakers of Other Languages, 1983.

Teitelbaum, H., Hiller, R., Gray, T. C. & Bergin, V. Changing schools: The language minority student in the Eighties. Washington, D.C.: Center for Applied Linguistics, 1982.

Tikunoff, W. J. Consequences for students in successful bilingual instructional settings. San Francisco, CA.: Far West Laboratory, Oct., 1982. (SBIF-81-R.6-V)

Tikunoff, W. J. (Ed.). Compatibility of the SBIF features with other research on instruction of LEP students. San Francisco, CA.: Far West Laboratory, Sept., 1983. (SBIF-83-R.8/18) (a)

Tikunoff, W. J. Utility of the SBIF features for the instruction of LEP students. San Francisco, CA.: Far West Laboratory, Sept., 1983. (SBIF-83-R.15/16) (b)

References (cont'd)

Tikunoff, W. J. et al. Success indicators and consequences for limited English language proficient students in the SBIF study. San Francisco, CA.: Far West Laboratory, Nov., 1981. (SBIF-R.5/R.6-II)

Treuba, H. T., Guthrie, G. P. & Au, K. H. (Eds.) Culture and the bilingual classroom: Studies in classroom ethnography. Rowley, MA.: Newbury House, 1981.

Tucker, G. R. Implications for U.S. bilingual education: Evidence from Canadian research. Focus, No. 2. Rosslyn, VA.: National Clearinghouse for Bilingual Education, Feb., 1980.

Villegas, A. M. Stability of instructional system and process for a sample of ten bilingual teachers in the SBIF study. San Francisco, CA.: Far West Laboratory, Aug., 1983. (SBIF-83-R.13)

Willig, A. C. The effectiveness of bilingual education: Review of a report. NABE Journal, 1981-82, 6 (2-3), 1-19.